

PHILIP MORRIS INCORPORATED
INTER-OFFICE CORRESPONDENCE
RICHMOND, VIRGINIA

To: . Mr. L. R. Turano
From: . W. T. Callahan and S. R. Wagoner
Subject: . Shred Size Distribution Factory Test

Date: November 16, 1981

SUBJECT

Is cigarette quality and/or manufacturing performance affected by cut filler shred length distribution?

CONCLUSIONS

- 1) In the range tested for percent longs in cigarettes (22% to 38%), there was a direct correlation with cigarette firmness, coal strength, and maker performance.
- 2) In cigarettes, the effect of percent mediums on firmness and manufacturing performance is negligible compared to the effect of percent longs.
- 3) The percent dust (fines + smalls) in cut filler varies inversely to cigarette manufacturing yield.

RECOMMENDATIONS

- 1) Any changes in process or maker design should be evaluated for their effect on cut filler size distribution.
- 2) Endeavors should be made to increase the percentage longs in cut filler for potential cost savings in the cigarette.

HIGHLIGHTS

Nine different cut filler blends were prepared which varied only in their level of percent longs and percent dust. For the test, approximately 150 bone dry pounds of each blend was made into Marlboro LS cigarettes. Cigarettes were made to a constant weight. Manufacturing performance and quality analyses included the following:

- 1) Packer rejects due to void or loose ends.
- 2) Size distribution at hopper, garniture, ecreteur, and ripped cigarettes.
- 3) Firmness (Marlboro KS made at R&D with same blends).
- 4) Chemical and smoke data.

Detailed results are provided in the attached discussion section.

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Attachments

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